

<p>Dr John Moore and Mr Rex Glencross-Grant</p>	<p>Not only is there a need to examine the structural health of existing bridges in an economic manner, but there is also a need, particularly in relation to timber girder bridges, to better understand the strength/elasticity relationship. The need to economically measure regional bridges is different from that of the need in regions of high population such as a capital city. City bridges are characterised as large high cost structures carrying many thousands of vehicles per day which are near large maintenance centres. Regional bridges can be very remote, 100s of kilometres from a maintenance centre, and only carry a few hundred vehicles per day. However, some of these vehicles can be high mass and such bridges might be critical to local access. There is also the question of economically constructing new/replacement bridges. Concrete structures are major contributors to the global CO₂ footprint and sand is in short supply world-wide.</p> <p>A pilot study cost to measure one single span bridge and report its carrying capacity could currently cost between \$5 000 and \$10 000. This could also include creating a suitable contract for the task. The budget cost for a multiple span bridge might be between \$10 000 and \$20 000. Such costs are typical of measuring one isolated bridge. Ways of decreasing these costs for a large set of bridges would be part of the project which would also include new methods of Structural Health Monitoring (SHM). UNE currently has the measurement equipment to carry out spot bridge carrying capacity estimations; local councils, as far as I am aware, do not.</p>
<p>Associate Professor Sue Wilson and Dr Matthew Tighe</p>	<p>This project aims to integrate innovative low cost technologies in mine site rehabilitation to prevent emissions of toxic trace elements and provide for effective and sustainable human and environment protection. Thousands of abandoned mines exist across NSW with widescale environmental impact issues costing the economy millions of dollars each year and great community anxiety. A range of low cost technologies using sorption manipulation can be used to immobilise pollutants and limit their dispersion and ecological transfer. Efficacy, however, depends on precise control of biogeochemical processes with success hindered by poor understanding of environmental parameters driving these. This project will apply advanced analysis techniques to unravel the complexities of pollutant immobilisation for scale-up to affordable and long-term rehabilitation strategies at these problem sites.</p>
<p>Associate Professor Elaine Barclay, Associate Professor Bernice Kotey, Dr Helena Menih and Dr Natalie Thomas</p>	<p>Rising prison populations and overcrowded facilities have seen Australian jurisdictions respond with prison expansion programs, primarily within rural areas. In NSW, \$3.8 billion has been allocated to establish new facilities and upgrade, expand, or repurpose existing centres over a four year period. Yet little is known about the impact of prisons on the economies of rural communities. To address this, our highly experienced research team of criminologists, a rural sociologist and an economist propose to conduct a socio-economic impact analysis drawing on a range of data sources to compare NSW rural LGAs with similar characteristics, with and without a prison. Case studies of four NSW LGAs that house a prison will incorporate residents and stakeholders'</p>

	<p>perspectives and ground the quantitative findings. A model will be generated for a decision support system to assist policy-makers to assess the impact of a prison upon a rural community when planning prison development. The findings will provide insight into the benefits of the prison industry for rural economies as well as ways to improve existing practices and policies with prison expansion programs (if needed) that take into account the complexity of rural communities, the specific needs of offenders and their families and other support networks during the prison term and reintegration period, and the inherent difficulties and constraints of service delivery that can exist in rural and remote settings.</p>
<p>Professor Brian Sindel and Mr Lloyd Thomson</p>	<p>The Future Food Systems (FFS) CRC will provide technology and skills needed to make Australia a leader in supply of premium, nutritionally dense food goods. Innovation in nutrition-focused agronomy, indoor cropping, advanced manufacturing and smart logistics will help overcome declining returns for agricultural commodities. The resulting sustainable supply systems will enable regional agrifood hubs to capture Australia's share of emerging markets expected to reach AU\$8 trillion pa in value by 2025.</p> <p>FFS CRC participants include large and small growers, food manufacturers, technology providers, airport owners, major research providers, SMEs and regional development organisations. The participants are collectively coinvesting in the FFSCRC as they have identified that a co-ordinated approach to research, new business and capability development is required to realise Australia's future food systems.</p> <p>Many of the outcomes of the FFSCRC will be delivered via export-facing regional and peri-urban food precincts in NSW, WA, NT, QLD and VIC to develop unique solutions for sustainable production of high value goods.</p> <p>The opportunity for local government is to coinvest with the FFS CRC and industry partners to develop these food precincts for the benefit of regional economies.</p>
<p>Associate Professor Bernice Kotey</p>	<p>I am interested in ascertaining the various funding sources available to start-ups in regional areas. Although the federal government's innovation fund as well as state government support for various start-up programs have increased the number of start-ups significantly, the challenge has been helping potential business owners to gain access to finance to support promising ideas.</p> <p>There are several funding sources that have not been tapped into due to a variety of factors including lack of knowledge.</p> <p>My proposal is to ascertain the various sources of funding available to SMEs in regional areas and the extent to which potential owners are open to using these sources of funding.</p>
<p>Professor Brian Dollery and Dr Ian Tiley</p>	<p>The Local Government Amendment (Regional Joint Organisations) Act 2017 commenced on 15 December 2017, allowing Councils in regional NSW to voluntarily create new Joint Organisations (JO) in 2018. Armidale Regional Council resolved on 13 December 2017 to endorse the formation of a New</p>

	<p>England Joint Organisation and approved of Council becoming a member of the JO.</p> <p>The legislation provides for:</p> <ul style="list-style-type: none"> • the constitution of the joint organisations • the functions and operation of the JOs • the area of the JO to consist of at least 2 council areas • the constitution of the JO as a body corporate • the establishment of principal functions of strategic regional priorities, provide regional leadership and identify and take up opportunities for inter-governmental co-operation on regional matters • the making of decisions through a Board structure, comprising the Mayor of each council and one additional representative. A Charter is to be prepared and adopted by the Board. <p>JOs are a key NSW Government commitment to build stronger councils and improve service delivery and infrastructure across rural and regional communities. The goals of strengthening regions, regional co-ordination, greater strategic focus, improving delivery of important infrastructure and services, better connected communities, and of delivery of important projects on a regional scale, should be strongly supported by local councils. It also has strong support in the scholarly literature on inter-municipal cooperation.</p> <p>The JO model will provide an excellent platform for embarking on delivery of shared services to local communities. The Centre for Local Government at UNE has conducted considerable research and has expertise in relation to shared services methodology and practice.</p> <p>This project would explore areas in which councils could cooperate through Jos, especially in shared service delivery, for the benefit of local government councils and their local communities. The outcomes would be shared with the NSW Office of Local Government and the JOs across regional NSW. Recognising that each region will have its own unique challenges and opportunities, the UNE Centre for Local Government has the skills, experience and capacity to support the fundamental strategic and cultural shift of working at a regional scale. The Centre can also assist JOs determine and deliver collaborative projects with benefits back to member councils.</p> <p>Researchers at the Centre can offer informed advice based on international and Australian experience with inter-municipal cooperation. Moreover, researchers at the Centre have developed a template which can be refined for use by JOs to enable them to decide on which functions and services can be offered through JOs and which should be retained at the council level.</p> <p>The project would deliver a report which summarises the international and Australian literature on shared services and distils it into a form which make it useful to JOs as they decide on their shared service mix. A template would also be delivered which can be used by individual JOs to help them decide on which functions/service should be provided regionally and which retained locally.</p>
--	---